



IMAGES IN CARDIOLOGY

An unexpected diagnosis in an asymptomatic young woman

Un diagnóstico inesperado en una joven asintomática

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An 18-year-old asymptomatic and athletic female was referred to our institute with a high suspicion of a pericardial cyst, seen on a pre-competitive echocardiogram. A cardiovascular magnetic resonance (CMR) with gadolinium was performed. The balanced turbo field-echo sequence in short axis and four-chamber view showed aneurysmal dilation (*) of the right atrial appendage (RAA) measuring 79 × 95 × 52 mm (Fig. 1A and B). The RAA aneurysm changed in size during systole (Fig. 2A) and diastole (Fig. 2B), indicating the presence of contraction. T1-weighted imaging did not demonstrate late gadolinium enhancement along the wall of the RA and RRA aneurysm (Fig. 3) and no clear evidence of thrombosis was seen. Biventricular systolic function was preserved. Due to a low sensitivity of the CMR to rule out small and mobile thrombi, a transesophageal echocardiogram was indicated, however, it was rejected by the patient.

RAA aneurysm is a rare congenital cardiac abnormality thought to be caused by dysplasia of the muscular wall of the RA and RAA¹. Most patients are asymptomatic at presentation, however, some present palpitations, arrhythmias, or dyspnea. Complications include atrial tachyarrhythmias and intracavitary thrombus. Final diagnosis can be confirmed on CMR as was done in our case². Scarce data exist about the

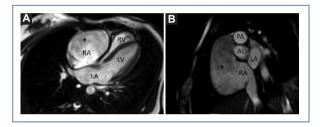


Figure 1. A: balanced turbo field-echo sequence image in four chambers. B: short axis, demonstrates atrial appendage aneurysm (*) communicating with right atrium (RA). AO: aorta, LA: left atrium; LV: left ventricle; PA: pulmonary artery.

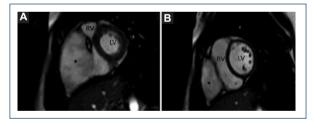


Figure 2. Balanced turbo field-echo four chamber image. The right atrial appendage (RAA) aneurysm (*) can be seen compressing and deforming the right ventricle (RV). The aneurysm changed in size during A: systole and B: diastole, indicating the presence of contraction. LV: left ventricle.

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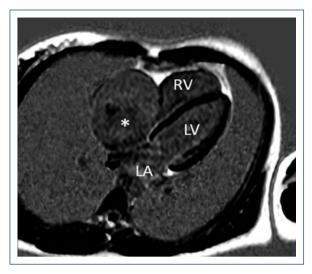


Figure 3. T1-weighted imaging does not show late gadolinium enhancement along the wall of the RAA aneurysm (*). LA: left atrium, LV: left ventricle, RV: right ventricle.

management of the RAA aneurysm, therefore, a conservative approach is usually recommended³. In our patient, no significant arrhythmia was seen on 24 h Holter monitoring and because the patient refused to take medication an imaging follow-up was recommended without anticoagulation.

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Conflicts of interest

The authors have no conflicts of interest to disclose.

Ethical disclosures

Protection of human and animal subjects. The authors declare that no experiments were performed on humans or animals for this study.

Confidentiality of data. The authors declare that they have followed the protocols of their work center on the publication of patient data.

Right to privacy and informed consent. The authors declare that no patient data appear in this article.

References

- Ishii Y, Inamura N, Kayatani F. Congenital aneurysm of the right atrial appendage in a fetus. Pediatr Cardiol. 2012;33:1227-9.
- Uzun F, Güner A, Kahraman S, Kalkan AK, Güner EG, Ertürk M. Multimodality imaging of an asymptomatic giant right atrial appendage aneurysm. Echocardiography. 2020;37:347-350.
- Yue H, Zhang T, Zhao X, Wu Z. Right atrial appendage aneurysm: does it have to be resected? Anatol J Cardiol. 2019;22:E7.